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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### **DETAILED ACTION**

After carefully reviewing the pending claims and applicant's arguments in the Appeal Brief filed 6/7/11, examiner conducted another search and a new prior art reference Anderson (U.S. 7,280,651) was found that reads on multiple pending claims. Also, examiner believes the references (e.g. Shambaugh and Moore) cited in previous action still read on the pending claims. However, examiner agreed with the applicant's arguments to claim 12 that the claim was improperly rejected. Thus, examiner suggested (see the Interview Summary Record sent 10/19/11) the applicant's representative to incorporate determining step of claim 7 along with limitations of claim 12 in claim 1 to make the claim 1 allowable. However, applicant's representative refused the proposed examiner's amendment and suggested the examiner to generate a new action with new rejections on record for applicant to review.

#### ***Reopening of Prosecution-New ground of Rejection After Appeal***

1. In view of the appeal Brief filed on 06/07/2011, PROSECUTION IS HEREBY REOPENED. The rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have

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been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

***Claim Rejections - 35 USC § 101***

**2.** 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**3.** Claims 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

**4.** Claim 17 recites a medium having instructions encoded thereon for enabling a processor to perform the operation. Claim language does not comply with the requirements of MPEP 2106.01.I. The broadest reasonable interpretation of a claim drawn to a medium covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media. Transitory signal does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a

manufacture, and not a composition of two or more substances to constitute a composition of matter.

Note that a claim drawn to such a medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim.

Since claims 18-20 are dependent claims which they are not further narrowing the parent claim to cover only non-transitory medium; thus, these claims are also rejected under 35 U.S.C. 101.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Shambaugh et al. (U.S. Patent No. 6,771,746).

Regarding claim 24, with respect to Figures 2-6, Shambaugh teaches a system for managing telephone calls between an operator and a contact, comprising:

a call history database 660 in Figure 6 [i.e., contact database] for storing expected/unexpected response [i.e., information on the contact] (col.8, lines 11-28);

Shambaugh further teaches a call flow specification database 180 in Figure 1 [i.e., dialog database] containing a predetermined out-calling dialog (col.3, lines 60-65, col.5, line 66-col.6, line 4);

Shambaugh further teaches a call manager for calling the contact and presenting the contact with the dialog (fig.4; col.7, lines 22-25);

Shambaugh further teaches presenting the contact with a predetermined out-calling dialog (col.4, lines 41-67, col.7, lines 25-30);

Shambaugh further teaches an interactive voice response module for translating the contact's vocal responses to the dialog into textual words (see col.4, lines 25-26, valid responses from the call contact to earlier scripts has been converted to textual representations.) (col.3, lines 24-25, 57-60, col.4, lines 12-28, 41-67, col.5, lines 59-62, col.7, lines 30-34) and storing the words in the call history database 660 in Figure 6 which are accessible to the operator (col.8, lines 11-37).

Regarding claim 25, Shambaugh, as applied to claim 24, teaches that the contact database includes: a set of attributes associated with the contact (col.8, lines 11-37).

7. Claims 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson (U.S. Patent No. 7,280,651).

Regarding claim 24, with respect to Figures 1-4, Anderson teaches a system for managing telephone calls between an operator and a contact, comprising:

a contact database for storing information on the contact (col.7, lines 44-63);

Anderson further teaches a telemarketing database [i.e., dialog database] containing a predetermined out-calling dialog (col.8, lines 28-51);

Anderson further teaches a call manager for calling the contact and presenting the contact with the dialog (abstract; fig.4; col.7, lines 6-43);

Anderson further teaches presenting the contact with a predetermined out-calling dialog (col.7, lines 6-43);

Anderson further teaches an interactive voice response module for translating the contact's vocal responses to the dialog into textual words (col.9, lines 21-44) and storing the words in the database which are accessible to the operator (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claim 25, Anderson, as applied to claim 24, teaches that the contact database includes: a set of attributes associated with the contact (col.7, lines 44-63).

### ***Claim Rejections - 35 USC § 103***

**8.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1, 4-10 and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. (U.S. Patent No. 6,771,746) in view of Moore et al. (U.S. Patent No. 7,382,868).

Regarding claims 1, 17, 21, with respect to Figures 2-6, Shambaugh teaches a method for managing telephone calls, comprising:



calling a contact (fig.4; col.7, lines 22-25);

Shambaugh further teaches presenting the contact with a predetermined out-calling dialog (col.4, lines 41-67, col.7, lines 25-30);

Shambaugh further teaches translating the contact's vocal responses to the dialog into textual words (see col.4, lines 25-26, valid responses from the call contact to earlier scripts has been converted to textual representations.) using selected speech recognition technology such as speech-to-text conversion (col.3, lines 24-25, 57-60, col.4, lines 25-28, 41-67, col.5, lines 59-62, col.8, lines 11-37);

Shambaugh further teaches that speech-to-text conversion process is performed by an interactive voice response (IVR) algorithm. It is because, the system of Shambaugh has interacted with the contact using speech recognition technology/algorithm (see col.3, lines 24-25, col.4, lines 25-28, 41-67). However, Shambaugh does not specifically teach that this speech-to-text conversion process applies multiple interactive voice response (IVR) algorithms. In other word, Shambaugh does not specifically teach that this speech-to-text conversion process applies multiple speech recognition algorithms. Moore teaches that the speech-to-text conversion process applies speech recognition algorithms [i.e., interactive voice response algorithms] (col.25, lines 38-43). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh to incorporate the feature of applying speech recognition algorithms by speech-to-text conversion process in Shambaugh's invention as taught by Moore. The motivation for the modification is to do so in order to convert user's utterance into text using multiple speech recognition algorithms.

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Shambaugh further teaches connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (col.4, lines 12-23, 58, col.7, lines 30-34, col.8, lines 11-37);

Shambaugh further teaches providing the operator with the textual words (col.4, lines 12-28, col.7, lines 30-34, col.8, lines 11-37).

Regarding claim 4, Shambaugh, as applied to claim 1, teaches that selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact (col.4, lines 41-67, col.7, lines 44-63col.7, lines 25-30).

Regarding claims 5, 18, 22, Shambaugh teaches storing the contact's vocal responses, textual words, and contact attributes in a call history database 660 in Figure 6 [i.e., contact database] (col.8, lines 11-28); and

Shambaugh further teaches providing the operator with access to the contact database (col.8, lines 11-37).

Regarding claims 6, 19, Shambaugh teaches continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (col.4, lines 12-19).

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Regarding claims 7, 20, 23, Shambaugh teaches determining whether the contact is interested in the out-calling dialog and wherein connecting includes, connecting the contact to the operator, if the contact is interested (col.4, lines 41-67, col.7, lines 25-30, col.8, lines 11-37).

Regarding claim 8, Shambaugh teaches applying a set of heuristics to the textual words (col.4, lines 41-67, col.7, lines 25-30, col.8, lines 11-37).

Regarding claim 9, Shambaugh teaches matching the textual words with predetermined keywords associated with interest (col.4, lines 41-67, col.7, lines 25-30, col.8, lines 11-37).

Regarding claim 10, Shambaugh teaches matching the textual words with predetermined keywords associated with disinterest (col.4, lines 41-67, col.7, lines 25-30, col.8, lines 11-37).

Regarding claim 13, Shambaugh further teaches terminating the call with the contact, if the contact is not interested (col.4, lines 61-67).

Regarding claim 14, Shambaugh teaches performing the translating and determining elements in parallel (col.4, lines 12-28, col.7, lines 25-30, col.8, lines 11-37).

Regarding claim 15, Shambaugh teaches performing the determining element after the predetermined portion of the out-calling dialog with the contact is completed (col.4, lines 41-67, col.7, lines 25-30, col.8, lines 11-37).

Claim 16 is rejected for the same reasons as discussed above with respect to claims 1, 5, 7 and 13.

**12.** Claims 1, 2, 4-10 and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (U.S. Patent No. 7,280,651) in view of Moore et al. (U.S. Patent No. 7,382,868).

Regarding claims 1, 17, 21, with respect to Figures 1-4, Anderson teaches a method for managing telephone calls, comprising:

calling a contact (fig.4, item 404);

Anderson further teaches presenting the contact with a predetermined out-calling dialog (abstract; fig.4; col.7, lines 6-43);

Anderson further teaches translating the contact's vocal responses to the dialog into textual words (col.9, lines 21-44) using selected speech recognition technology such as speech-to-text conversion (col.9, lines 21-44);

Anderson further teaches that speech-to-text conversion process is performed by an speech recognition device. It is because, the system of Anderson has interacted with the contact using speech recognition technology/algorithm (see col.9, lines 21-44). However, Anderson does not specifically teach that this speech-to-text conversion process applies multiple interactive voice response (IVR) algorithms. In other word, Anderson does not specifically teach that this speech-to-text conversion process applies multiple speech recognition algorithms. Moore teaches that the speech-to-text conversion process applies speech recognition algorithms [i.e., interactive

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voice response algorithms] (col.25, lines 38-43). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Anderson to incorporate the feature of applying speech recognition algorithms by speech-to-text conversion process in Anderson's invention as taught by Moore. The motivation for the modification is to do so in order to convert user's utterance into text using multiple speech recognition algorithms.

Anderson further teaches connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32);

Anderson further teaches providing the operator with the textual words (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claim 2, Shambaugh teaches selecting the contact from a set of contacts within a contact database (fig.4, steps 402, 404; col.9, lines 21-26).

Regarding claim 4, Anderson, as applied to claim 1, teaches that selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claims 5, 18, 22, Anderson teaches storing the contact's vocal responses, textual words, and contact attributes in a contact database (col.4, lines 31-33, col.7, lines 44-63, col.10, lines 4-32); and

Anderson further teaches providing the operator with access to the contact database (col.4, lines 31-33, col.7, lines 44-63, col.10, lines 4-32).

Regarding claims 6, 19, Anderson teaches continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claims 7, 20, 23, Anderson teaches determining whether the contact is interested in the out-calling dialog and wherein connecting includes, connecting the contact to the operator, if the contact is interested (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claim 8, Anderson teaches applying a set of heuristics to the textual words (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claim 9, Anderson teaches matching the textual words with predetermined keywords associated with interest (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claim 10, Anderson teaches matching the textual words with predetermined keywords associated with disinterest (col.4, lines 31-33, col.7, lines 6-43, col.10, lines 4-32).

Regarding claim 13, Anderson further teaches terminating the call with the contact, if the contact is not interested (col.9, lines 55- col.10, line 3).

Regarding claim 14, Anderson teaches performing the translating and determining elements in parallel (col.9, lines 21-44).

Regarding claim 15, Anderson teaches performing the determining element after the predetermined portion of the out-calling dialog with the contact is completed (col.9, lines 21-44, col.10, lines 4-32).

Claim 16 is rejected for the same reasons as discussed above with respect to claims 1, 5, 7 and 13.

**13.** Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. in view of Moore et al. further in view of Merrow et al. (U.S. Patent No. 6,990,179).

Regarding claim 2, Shambaugh in view of Moore does not specifically teach selecting the contact from a set of contacts within a contact database. Merrow teaches selecting the contact from a set of contacts within a contact database (col.2, lines 29-49). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of selecting the contact from a set of contacts within a contact database in Shambaugh's invention in view of Moore's invention as

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taught by Merrow. The motivation for the modification is to do so in order to contact a potential customer such that a company can be benefitted out of a dealing with the customer.

Regarding claim 3, Shambaugh in view of Moore does not specifically teach classifying the contact as either a person or not a person and terminating the call, if the contact is not a person. Merrow teaches that classifying the contact as either a person or not a person and terminating the call, if the contact is not a person (abstract; col.2, line 50-col.3, line 40). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of classifying the contact as either a person or not a person and terminating the call, if the contact is not a person in Shambaugh's invention in view of Moore's invention as taught by Merrow. The motivation for the modification is to do so in order to find out whether the system is contacting with a person such that the system can save time not to interact with a machine.

**14.** Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. in view of Moore et al. further in view of Lau et al. (U.S. Patent No. 6,850,766).

Regarding claim 11, Shambaugh teaches applying a set of heuristics to the textual words (col.4, lines 41-67, col.7, lines 25-30). However, Shambaugh in view of Moore does not specifically teach concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest. Lau teaches concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's



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interest (fig.4a; col.5, line 66-col.6, line 28). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest in Shambaugh's invention in view of Moore's invention as taught by Lau. The motivation for the modification is to do so in order to verify the utterance of a user such that the closest correct responses can be achieved for interest.

**15.** Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Moore et al. further in view of Merrow et al. (U.S. Patent No. 6,990,179).

Regarding claim 3, Anderson in view of Moore does not specifically teach classifying the contact as either a person or not a person and terminating the call, if the contact is not a person. Merrow teaches that classifying the contact as either a person or not a person and terminating the call, if the contact is not a person (abstract; col.2, line 50-col.3, line 40). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Anderson in view of Moore to incorporate the feature of classifying the contact as either a person or not a person and terminating the call, if the contact is not a person in Anderson's invention in view of Moore's invention as taught by Merrow. The motivation for the modification is to do so in order to find out whether the system is contacting with a person such that the system can save time not to interact with a machine.

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**16.** Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Moore et al. further in view of Lau et al. (U.S. Patent No. 6,850,766).

Regarding claim 11, Anderson teaches applying a set of heuristics to the textual words (col.4, lines 41-67, col.7, lines 25-30). However, Anderson in view of Moore does not specifically teach concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest. Lau teaches concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest (fig.4a; col.5, line 66-col.6, line 28). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Anderson in view of Moore to incorporate the feature of concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest in Anderson's invention in view of Moore's invention as taught by Lau. The motivation for the modification is to do so in order to verify the utterance of a user such that the closest correct responses can be achieved for interest.

#### ***Allowable Subject Matter***

**17.** After careful reviewing of claim 12 examiner has withdrawn the rejection as stated in previous Final Rejection because regarding the claims applicant's argument is persuasive.

**18.** Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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**19. Reasons for allowance:** The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 12, the prior art Shambaugh, Moore and Kanevsky after having all the limitation of parent claim fail to teach associating a score with each heuristic of a set of heuristics applied to the textual words, totaling the scores and concluding that the contact is interested if the total score is above a predetermined threshold. There is no suggestion in any of the references to combine with each other to teach the claimed limitations.

Examiner newly discovered prior art Anderson, Moore and Kanevsky after having all the limitation of parent claim fail to teach associating a score with each heuristic of a set of heuristics applied to the textual words, totaling the scores and concluding that the contact is interested if the total score is above a predetermined threshold. There is no suggestion in any of the references to combine with each other to teach the claimed limitations.

### ***Conclusion***

**20.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to MD S. ELAHEE whose telephone number is (571)272-7536. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, FAN TSANG can be reached on (571)272-7547. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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